

ABSTRACT

The present invention relates to an apparatus for creating a pattern on a workpiece sensitive to radiation, such as a photomask, a display panel or a microoptical device. The apparatus comprises a radiation source and a spatial modulator (SLM) having a multitude of modulating elements (pixels). It further comprises an electronic data processing and delivery system feeding drive signals to the modulator, a precision mechanical system for moving said workpiece and an electronic control system coordinating the movement of the workpiece, the feeding of the signals to the modulator and the intensity of the radiation, so that said pattern is stitched together from the partial images created by the sequence of partial patterns. According to the invention the drive signals can set a modulating element to a number of states larger than two.

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